

Amendment to the Claims

What is claimed is:

1-25. (Previously Cancelled).

26. (Twice Amended) A method for generating a database of sequences that are greater than or equal to about 100 nucleotides in length, wherein each sequence is entered into the database only one time, the method comprising the steps of :

selecting a query sequence from a redundant database, said redundant database comprising random short sequences of an informational biomolecule;

masking said query sequence with known repeat sequences to create a contig masked query sequence capable of masking novel repetitive elements;

comparing said contig masked query sequence with identified unique sequences;

identifying a unique portion of the query sequence that does not have a similar sequence in any of the identified unique sequences and remembering same;

adding the unique portion of the query sequence to a unique database in order to reassemble the data therein via an interactive learning process into an assembly with those in the known repeat/masking database, and

displaying the unique database.

27. (Previously Cancelled).

28. (Original) The method of claim 26, wherein said sequence is a deoxyribonucleotide sequence.

29. (Original) The method of claim 26, wherein said sequence is a ribonucleotide sequence.

30. (Original) The method of claim 26, wherein said sequences are derived from animal DNA or RNA.

31-41. (Previously Withdrawn).

42. (Original) The method of claim 26, wherein said database is encoded in an electronic medium.

43. (Original) The method of claim 42, wherein said electronic medium is a computer-readable medium.

44. (Original) The method of claim 43, wherein said computer-readable medium is addressable through an internet connection.

45. (Original) The method of claim 26, wherein said redundant database is a Public Domain Database.

46. (Original) The method of claim 45, wherein said Public Domain Database is GenBank.

47-49 (Previously Withdrawn)

50. (Original) The method of claim 26, wherein said comparing step further utilizes a Database Search Algorithm.

51. (Original) The method of claim 50, wherein said Database Search Algorithm is BLAST.

52-53 (Previously Withdrawn)

54. (Original) The method of claim 26, wherein said comparing step further utilizes a Scoring Matrix Program.

55-56 (Previously Withdrawn)

57-60 (Previously Cancelled)

CLAIMS REJECTIONS – 35 USC § 102

Claims 26, 28-30, 42-46, 50, 51, and 54 are rejected under 35 U.S.C. 102(b) as being anticipated by NCBI News (1996), the rejection being maintained by the Examiner as recited in the previous office action mailed September 08, 2003.

REPOSENSE TO ARGUMENTS

Applicant has properly argued that the claimed invention deals with large numbers of random snippets of DNA sequence information, and points (Specification, p. 4, l. 6-21 – sequence and sequence fragments are repeated in public databases as many as 3 or 4 times) ~~and~~ that prior art searching algorithms fail to provide methods to remove such repeats from the database prior to searching. The Examiner argues that such of Applicant's arguments are not persuasive because the claims do not recite the argued limitations.

Applicants have amended the independent base claim 26 in order to recite the argued limitations per the Examiner's arguments:

- “random snippets of DNA,” as supported throughout the Specification, e.g. p. 4, l. 16-21;
- “contigs,” as supported throughout the Specification, e.g., p. 15, l. 1-8;
- “mask novel repetitive elements,” as supported throughout the Specification, e.g., p. 28, l. 8-14;
- “reassemble the data via an iterative learning process....,” as supported throughout the Specification, e.g., p. 29, l. 3-14;
- “remembers (to delete)....,” *Id.*;

- “assembly (by adding novel repeats to the known repeat/masking database,” as supported throughout the Specification, e.g., p. 29, l. 18 *et seq.*

Applicants argue that the claims as amended per the addition of the specific, fully-supported limitations as pointed out by the Examiner overcome the novelty bases of rejection and that claims 26, 28-30, 42-46, 50, 51, and 54 as amended should now be forwarded to allowance.